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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,124	09/10/2003	Andrew Michael Duggan	MRKS/0099	3542

7590 07/27/2005  
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EXAMINER
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STEPHENSON, DANIEL P

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/659,124

Applicant(s)

DUGGAN, ANDREW MICHAEL

Examiner

Daniel P. Stephenson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-79 is/are pending in the application.  
4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-13, 32, 35, 38, 41-44, 47, 50, 54-56, 64, 67, 70 and 73-75 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/12/04, 4/19/04  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims withdrawn from consideration are 14-31,33,34,36,37,39,40,45,46,48,49,51-53,57-63,65,66,68,69,71,72 and 76-79.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5, 6, 11-13, 32, 35, 38, 44, 47, 50, 54-56, 64 and 70 are rejected under 35 U.S.C. 102(e) as being anticipated by the pre-grant publication '410 to Underhill. Underhill '410 discloses (figs. 13, 17 and 18) a tubing expansion tool with a body (442) and an expansion member (402) radially movably mounted on the body for movement towards an expanded position (dashed lines) for expanding tubing to a predetermined diameter. The member is lockable in the extended configuration by a locking assembly (444, 472, 478) which mechanically locks the member in the extended position. The inner member can be moved by hydraulic force as shown in other embodiments (figs. 13 and 17). The expansion member is located on an activating member (422) that moves it into the expanded position through the use of a cam surface. The locking member is adapted to engage the tool body and is coupled to the expansion member. The expansion member is rotatable about an axis which is inclined with respect to the body and is inclined towards the leading end of the tool. The expansion member can be expanded and released either within the tubing or outside of it. It can be operated after passing through a restriction in the tubular then expanding the tool.

With regards to claims 35 and 38, these limitations do not apply to the tool and are dependent from a separate entity, namely the tubing that the tool is said to expand. Therefore, unless the tool is positively claimed in combination with the tubing these limitations are given little, if any, patentable weight.

3. Claims 1, 3, 6-8, 32, 35, 38, 41, 42, 44, 54-56, 64, 67 and 70 are rejected under 35 U.S.C. 102(a) as being anticipated by the WIPO document '456 to Oosterling et al. (hereafter WIPO '456). WIPO '456 discloses a tubing expansion tool with a body (12) and an expansion member (22) radially movably mounted on the body for movement towards an expanded position for expanding tubing to a predetermined diameter. The member is lockable in the extended configuration by activating it through hydraulic pressure and maintaining the pressure. The expansion member is located on an activating member (16) that moves it into the expanded position through the use of a cam surface. The expansion member pivots in relation to the body about pin (24). The expansion member can be expanded and released either within the tubing or outside of it. It can be operated after passing through a restriction in the tubular or an unlined portion of the borehole then expanding the tool.

With regards to claims 35 and 38, these limitations do not apply to the tool and are dependent from a separate entity, namely the tubing that the tool is said to expand. Therefore, unless the tool is positively claimed in combination with the tubing these limitations are given little, if any, patentable weight.

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Underhill '410. Underhill '410 shows all the limitations of the present invention, except it does not explicitly disclose that the locking mechanism is electromechanical in nature. It is officially noticed that an electromechanical locking mechanism is an art recognized equivalent to that of a mechanical or hydraulic locking mechanism. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the mechanical locking assembly of WIPO '410 with an electromechanical assembly. This would be done to speed the time of activation or lower costs.

6. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO '456 in view of Kammerer, Jr. WIPO '456 shows all the limitations of the present invention, except it does not explicitly disclose that there is a locking assembly that locks the activating assembly in the expansion position. Kammerer, Jr. discloses an expansion member (37) that expands due an activation member (46). This member is locked in the activation position by a locking mechanism (50), which interacts with both the activation assembly and the tool body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the locking mechanism of Kammerer, Jr. to lock the activation member of WIPO '456. This

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would be done to have a reliable way of leaving the members in the locked position, and snap rings are a common feature in downhole tools.

7. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO '456 in view of Underhill '410. WIPO '456 shows all the limitations of the present invention, except it does not explicitly disclose that the expansion member is mounted on a pivoting arm and is mounted for rotation on the arm. Underhill '410 (Fig. 17) discloses a pivoting arm with a rotating expansion member located thereon. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the arm of Underhill '410 on the apparatus of WIPO '456. This would be done to allow the expansion with reduced friction on the expansion member since it allowed to rotate.

8. Claims 73-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Underhill '410 or WIPO '456 in view of the WIPO document '766 to Simpson et al. (hereafter WIPO '766). Underhill '410 or WIPO '456 shows all the limitations of the present invention, except they do not show that the apparatus make a bell-bottom indentation in the tubing or that another tubing is located there. WIPO '766 discloses (Fig. 17b) forming a bell-bottom formation in one tubular when attaching another tubular within it, using expansion members. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the apparatus of Underhill '410 or WIPO '456 to make the bell-bottom tubular of WIPO '766. This would be done because it is common to attach expandable tubulars in this manner within the wellbore art.

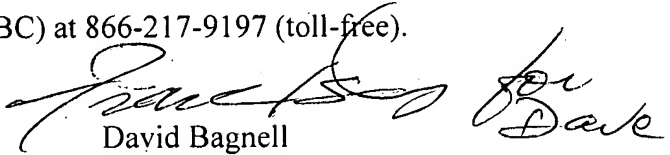
*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Post et al., and the pre-grant publications to Wubben, Luke et al., Johnson et al., McClurkin et al. and Maguire et al. all show similar features to those of the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel P. Stephenson whose telephone number is (571) 272-7035. The examiner can normally be reached on 8:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

DPS *DP*